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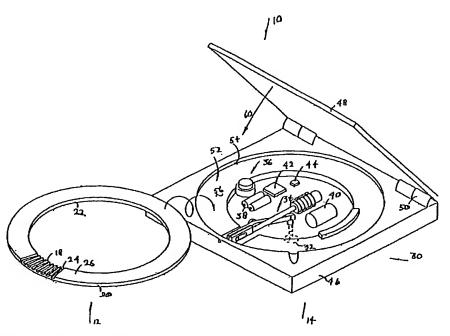
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### (54) Title: METHOD AND APPARATUS FOR MEASURING ANALYTES



(57) Abstract: A device comprises a cartridge (12) and a plurality of analyte detecting members (18) mounted on said cartridge. The cartridge may have a radial disc shape. The analyte detecting members may be a three-electrode system wherein only a working electrode is covered with a glucose oxidase. In one embodiment, the device may also include a fluid spreader (28) positioned over at least a portion of said analyte detecting member to urge fluid toward one of the detecting members. A plurality of analyte detecting members may be used. Each analyte detecting member may be a low volume device.

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X US 6,206,841	US 6,206,841 B (Cunningham et al.) 27 March 2001, See entire document.					
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Further documents are listed in the continuation of Box C.  See patent family annex.						
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